

HELICAL DRIVE INSERTION AND EJECTION

ABSTRACT

A helical drive system for seating and unseating a removable component, such as a printed circuit board, into a slot is described. The helical drive system includes a receptacle fixed to a housing proximate the slot. A handle and drive shaft are attached to the printed circuit board. The drive shaft has a helical groove that mates with a pin included in the receptacle. Rotation of the drive shaft pulls the printed circuit board into the slot and fully seats the printed circuit board. Rotation in the other direction unseats the printed circuit board. The helical groove has an enlarged entry that terminates in one or more points. This configuration facilitates the automatic alignment of the pin with the helical groove.